

REMARKS

This paper is filed in response to the Office Action dated May 16, 2005. By this Amendment, claim 1 is amended. No new matter is added.

The Office Action rejects claims 1-2, 5, 8-10, 12-17 and 20 under 35 U.S.C. §102(b) as being anticipated by Visca et al. This rejection is traversed.

Before discussing the cited prior art, Applicants wish to focus on the gist of the present invention which resides in the use of perfluoropolyether (PFPE) phosphate diesters species (B) (the same can be applied for the unelected compounds (A), (C) and D)) on metal substrates for conferring anticalcar properties.

Said use allows easy removal of calcar deposits from a metal surface by simply washing the treated metal surface with running water flow at room temperature (see the present specification at page 2, lines 15-17) without employing an abrasive system (brushes) or chemical solutions as utilized in the prior art (see the specification at page 10, lines 7-18).

Visca et al. is directed to the use of PFPE having two specific reactive end groups for conferring improved oil/water repellency, with respect to the use of PFPE having one reactive group, to porous surfaces such as paper, "cotto", wood, fabric (see page 2, lines 14-16 and lines 22-43). Said groups are selected from:

- a) -CONHR
- b) -CH₂OH
- c) -CONH (X) SiR¹_n (OR')_{3-n}
- d) -[CH₂O (R'''O)_p]_k -P(O) (OH)_{3-k}

The reactive groups are chosen according to the nature of the surface to be treated so as to provide interaction with the surface to be treated. See claim 1 and page 3, lines 13-14.

Paper, "cotto" and wood are specifically disclosed as a surface in the examples.

In view of the above, the present method which uses PFPE having reactive phosphoric groups on metal surface, is not specifically disclosed by Visca et al.

Since Visca et al. does not describe the invention presently claimed as such, the position asserted in the Office Action seems to be the result of puzzling together different pieces of Visca et al.

Really, what has been noted by the Office Action about metal surface is referred to PFPE having one reactive phosphoric group which were used by the prior art of Visca et al. for conferring oil/water repellency. See paragraph [0007] of Visca et al. wherein it is stated that the phosphoric monoester of paragraph [0006] was used on metal surface to confer oil/water repellency.

In contrast, PFPE having two reactive phosphoric groups is used by Visca et al. on a medium porosity "cotto toscano" (see example 3) and on porous paper (see example 1) which cannot be considered substrates similar in the behaviour to the metal substrates presently claimed.

Indeed the aim of Visca et al. is to provide a method for treating specific surfaces not including metals as clearly stated at paragraph [0008].

The position asserted in the Office Action is furthermore that the capability of imparting anticalcar properties to metal surface by PFPE having two phosphoric end

groups is inherent to the capability of imparting oil/water repellency to paper, "cotto", wood, fabric by the same PFPE having two phosphoric reactive end groups.

Applicants believe that said position is untenable in view of the following considerations.

Firstly, the repellency to calcar deposits (i.e. anticalcar properties) cannot be considered as inherent to the repellency to water or oil (i.e. water/oil repellency properties) since the calcar deposits are matter completely different from water or oil.

Secondly, Viscar et al. teaches to select the reactive groups of the PFPE in accordance with the nature of the surface to be treated so as to provide interaction with the surface to be treated.

Since PFPE having two reactive phosphoric groups are used by Visca et al. on paper and cotto (as exemplified) for imparting oleorepellency, the skilled in the art would not have drawn from the teaching to use the same PFPE phosphoric group on metal surface, in particular to use them for imparting anticalcar properties.

Indeed the skilled in the art would not have found any motivation to selected among the reactive PFPE of Visca et al. those having phosphoric group and to apply it to metal substrates.

What is unexpected of the present invention in view of Visca et al. is that when a metal surface is treated with PFPE phosphoric diester of Visca et al. the removal of calcar deposits on metal surface is possible by simply washing the surface with a running water flow at room temperature without employing abrasive system (brushes) or chemical solutions as instead in the prior art.


In view of the above the present method is novel and would not have been obvious over the cited Visca et al.

For at least the above reasons, reconsideration and withdrawal of the rejection under 35 U.S.C. §102(b) are respectfully requested.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, Applicants respectfully petition for an appropriate extension of time. The Commissioner is authorized to charge payment for any additional fees which may be required with respect to this paper or credit any overpayment to Counsel's Deposit Account 01-2300, making reference to Attorney Docket No. 108910-00051.

Respectfully submitted,


Robert K. Carpenter
Registration No. 34,794

Customer No. 004372
Arent Fox, PLLC
1050 Connecticut Avenue, N.W., Suite 400
Washington, D.C. 20036-5339
Tel: (202) 857-6000
Fax: (202) 638-4810
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